

JAMESTOWN ISLAND LOOP ROAD
Jamestown Island
Jamestown vicinity
James City County
Virginia

HAER No. VA-116

HAER
VA
48-JAN.V,
1-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

REDUCED COPIES OF MEASURED DRAWINGS

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
Department of the Interior
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Colonial National Historical Park
HAER No. VA-116

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Location: The Jamestown island loop road is located entirely within the area of Jamestown Island, Jamestown vicinity, James City County, Virginia
Quad: Surry, VA
UTM: 18/342400/4119525

Date of Construction: 1955-1958

Type of Structure: Interpretive loop road.

Use: Vehicular traffic

Designer/Engineer: Eastern Office of Design and Construction, National Park Service; Bureau of Public Roads, U.S. Department of Commerce.

Builder: W. H. Scott, Inc., Franklin, Virginia, and Adams Construction Company, Roanoke, Virginia.

Owner: National Park Service

Significance: Completed in 1957, the Jamestown island loop road was the last road-building contract associated with the completion of the Colonial Parkway. Considered a "wilderness road," the five mile circuit is designed to provide a sense of the primitive isolation of the seventeenth century frontier. Along the short (three mile) and the full circuit, interpretive paintings by Sidney King depict the first settlers use and adaptation to the land. These painting are representative of 1950s interpretive programs of the NPS at Colonial National Historical Park.

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Project Information: Documentation of the Jamestown island loop road is part of the Colonial National Historical Park Roads and Bridges Project, conducted in summer 1995 by the Historic American Engineering Record.

Project Historian: Michael G. Bennett, HAER Historian, 1995

COLONIAL NATIONAL HISTORICAL PARK ROAD SYSTEM

By the 1920s, National Park Service landscape architects and engineers began to develop loop or circuit roads to provide visitors access to areas of scenic and historical significance. These roads were specially designed to allow visitors to leave and reenter primary park roads without stopping, backing up, or making unnecessarily sharp turns. Loop roads derive from the romantic landscape theories of Andrew Jackson Downing, and were adopted by Frederick Law Olmsted in his design of nineteenth century urban parks. Apart from their recreational function, these roads are integral to park road systems, serving specific functions within the overall circulation plan of a park.¹

As the main scenic corridor unifying Jamestown and Yorktown, the Colonial Parkway, constructed between 1931 and 1957, was the park's primary roadway. But for visitor access, it failed to incorporate either the Yorktown battlefield or Jamestown island, the two primary land holdings of the park. Plans to develop tour roads in the battlefield were established in the 1930s during the initial planning for the 1931 celebration of the siege's sesquicentennial. The need to provide adequate circulation of the celebration grounds necessitated the restoration of many Revolutionary War era roads. Loop roads on Jamestown island, however, were not constructed until the 1950s with the redevelopment plans in preparation for the 350th anniversary of the settlement of Jamestown. Supplemented with historical markers and interpretive exhibits, both of these road systems provide a more intimate experience of a specific area within the park.

JAMESTOWN ISLAND LOOP ROADS

From the inception of Colonial National Historical Park in 1930, Jamestown Island has had problems of limited access, and scant above-ground remains of its seventeenth century life survive. In

¹Linda Flint McClelland, *Presenting Nature: The Historic Landscape Design of The National Park Service, 1916 to 1942* (Washington, DC: National Park Service, 1993), 126-127.

July 1931, the Treasury Department transferred 1.5 acres of the island to the Park Service. This acquisition included all of the land surrounding the Jamestown Monument built by the federal government in 1907 for the tercentennial of the founding of the settlement. Twenty-two acres of the island had been controlled by the Association for the Preservation of Virginia Antiquities since 1893. Their holding included the remains of the old church tower, the only above-ground seventeenth century structure on the island. The remaining 1514 acres were in the private ownership of Louise J. Barney. In 1933, condemnation hearings were initiated to acquire Barney's holding, and the following year the Park Service received title to the island. Interestingly, the park's first "Outline of Development" in 1933 stated that, "it is very desirable to secure the APVA reservation."² Despite this pronouncement, the APVA continues to retain its twenty-two acres and works closely with the park to coordinate interpretive programs.

Jamestown island is a fairly level, low terrace island comprised primarily of marshlands and pine-oak forests. In the seventeenth century the island was a peninsula between the James River and Powhatan Creek, connected to the mainland by a narrow isthmus that eroded in the eighteenth century. Initial plans of the Park Service in the early 1930s, called for the rebuilding of this isthmus with hydraulic fill to create a main entrance to the park from the terminus of the parkway at Glasshouse Point. To facilitate circulation, the plans were drawn to construct a "Main Road" across the isthmus, around APVA lands, and through the island to Black Point. According to the 1933 Outline of Development, "It will follow the alignment of the original cart road, and will conform as nearly as practicable thereto."³

Following park standards, the emphasis was on the restoration of historic features, rather than the reconstruction of new routes. Initial surveys of the island identified smaller road and trail

² William M. Robinson, "Outline of Development, 1933," 147, collection of the Colonial National Historical Park.

³ Ibid, 148.

traces that could be developed into secondary roads and trails that, "for the convenience of the visitor in reaching places of secondary interest may be built in the early colonial spirit." Despite the fact that the park had plans to develop the island, the whole area, except for special zones including the church and cemetery, administration facilities, and the future restored glass furnace, was designated a "Wilderness area" to conserve the flora and fauna typical of seventeenth century Jamestown. These conservation efforts were augmented by a vigilant program of shore protection to preserve the existing resources, which in 1933 were identified as the entire island.⁴

In the 1930s and 1940s, all work on Jamestown island was geared toward "future" development. Extensive archeological excavations and deed research were conducted to establish the history of the land ownership on the island. In order to systematically study the island, it was divided into four units and overlaid with a standard archeological survey grid. These units encompassed the dry zones of the island located between areas of marsh land. The island was of primary importance to the National Park Service as the site of the first permanent English settlement in North America. The island is integral to the interpretive mission of Colonial National Historical Park. Relatively little was known of the history of the island, however, since the land was redeveloped for agricultural use and all structures associated with the first colonial capital were obliterated. Initial archeological and documentary research was done by Lyon G. Tyler, Samuel H. Yonge and George C. Gregory. Their work began to uncover the history of the island through excavated artifacts.⁵

A less ambitious development program was initiated for the island to minimize the impact upon cultural and natural resources. In 1938, the park's Master Plan noted,

⁴ "Outline of Development," 148-158.

⁵B. Floyd Flickinger, Park Superintendent, "Colonial National Historical Park, Master Plan, 1936;" and "Master Plan, 1938," Colonial National Historical Park, Engineer's Office, Maintenance Division.

Since it is the plan of all concerned to preserve the major area of Jamestown Island so that it may attain the conditions at the time of the first settlement, it is proposed that roads and trails development be kept to a minimum required for protection.⁶

Building was limited to only a contact station (visitor center), rangers quarters, comfort station, water and sewage system, and a museum/archeological lab. In 1930, plans called for the restoration of the original settlement. Except for scattered reports of the construction of these buildings, little mention of the island is found in the Superintendent's Monthly Narrative Reports during the 1930s and 1940s. All development was considered temporary until a more comprehensive interpretive program could be undertaken. In 1940, the NPS and the APVA began to coordinate interpretive programs on the island. In that year the APVA created the "Committee for the Cooperation with the National Park Service," and in 1941 a joint ticket of admission to the island was initiated.⁷

Using the most recent archeological research, the Eastern Office of Design and Construction increased its efforts to develop an interpretive program in the late 1940s. Regional landscape architect Stanley Abbott spent the spring of 1949 at the park studying the parkway's terminus at Glasshouse Point and the general development plan for the island.⁸ In the road system plan of 1950, a proposal was made to obliterate Route 31 access onto the island and to the Scotland ferry wharf. The only roads existing on the island at the time were NPS Route 61, a marl surface road around APVA lands, and NPS Route 62, extending the

⁶Ibid.

⁷See Elbert Cox, Superintendent's Monthly Narrative Reports, August 1941. The NPS and the APVA continue to share revenue from the admission tickets today.

⁸ Edward Hummel, Superintendent's Monthly Narrative Reports, January - March 1949.

length of the island to Black Point.⁹

Park historians Charles Hatch and Edward Riley worked closely with landscape architect Nelson Royal to create an interpretive sign program for Yorktown, Jamestown and the parkway. All of this work culminated in the completion of the Colonial Parkway Road System Plan of May 1952. Included with the extension of the parkway to Jamestown and Yorktown were the expansion of the battlefield tour roads and the construction of a two circuit loop road into the interior of the island.¹⁰

Much of this work was in preparation for the upcoming 350th anniversary of the settlement of Jamestown. The celebration was organized through the efforts of the state appointed Virginia 350th Anniversary Commission, and the federal U.S. Jamestown-Williamsburg-Yorktown Celebration Commission. With plans in place, the park was able to efficiently distribute additional funds made available through Mission 66 appropriations (see HAER No. VA-115). In the fall of 1954, the first indepth planning and survey of the Jamestown island loop roads began with the completion of the "General Interpretive Plan, Jamestown Island" (drawings NHP-Col. 2253, and 2253B).¹¹

In 1954, the state and federal commissions retained the services of Gilmore D. Clarke, of the firm Clarke and Rapuano, to develop a land use plan for Jamestown and Yorktown in preparation for the celebration. Clarke played down the use of private automobiles

⁹ U.S. Department of the Interior, National Park Service, "Road System Plan, Colonial National Historical Park," Eastern Office of Design and Construction, Edward Zimmer, 1 June 1950.

¹⁰U.S. Department of the Interior, National Park Service, Colonial Parkway Road System Plan, Pky-Col 2065, Eastern Office of Design and Construction, Colonial National Historical Park, aperture card collection, Engineer's office, Maintenance Division.

¹¹Stanley Abbott, Superintendent's Monthly Narrative Reports, September-November 1954.

on the single-lane circuits around the island. Instead, Clarke advocated using "tractor-trains, or (some) other form of slow moving mass transportation," writing

The type of tractor-train I have in mind as being practical is in use at the New York Zoological Park, Bronx Borough, New York; this method of transport proved successful at the New York World's Fair, 1939-1940, and is popular now at the New York Zoo. The loop road is much too long for use solely as a walk, particularly during the hot summer months. However, it should be planned so as to be wide enough for tractor-trains moving in one direction and for pedestrians as well; a width of 14 or 16 feet would be sufficient and it would be appropriate to surface this path with the local marl, even though it may cost more to maintain than other more permanent surfacing materials.¹²

The Park Service decided against the use of mass transportation on the island. Perhaps the plan was perceived as being too artificial for such a primitive place. In November 1954, the Division of Interpretation began developing thematic paintings for the Jamestown island roads to be placed in "wayside" pull-offs. Directed by historian Harold Peterson, local artist Sidney King drew numerous sketches depicting the "probable" activities of settlers in a "primitive" frontier from which oil paintings were produced.¹³ The following year, W. H. Scott, Inc., was awarded the contract to grade and surface 4.9 miles of the island loop road and to construct four vehicular timber trestle bridges and a footbridge.

Plans were prepared by the Bureau of Public Roads in November 1955. Beginning at the island parking area, the one way single lane loop road turns southward over the pitch and tar swamp and loops around the entire width of the island for distance of

¹²Gilmore D. Clarke, letter to NPS Director Conrad Wirth, 27 December 1954, Colonial National Historical Park.

¹³Abbott, Superintendent's Monthly Narrative Report, November 1954, 4.

approximately five miles. About halfway through the full circuit, a cross-spur cuts the loop into two loops, creating a smaller circuit of only three miles. Along the roadway, there are numerous "wayside" pulloffs with historical markers and King's interpretive paintings, known as the "gallery in the woods." Plans called for sod to be removed to a depth of 4" and windrowed to the side for use upon the shoulders. A ten-ton power roller was used to compact the earth prior to surfacing. To accommodate a 12' roadway with two 4" shoulders, a 20' clearing was made following the alignment of the plans. A 10" two course gravel base was constructed and a hot asphalt surface was applied.¹⁴

Plans called for four bridges along the circuit, and an approach bridge just beyond the parking lot over the pitch and tar swamp (These bridges are designated No. 1 - No. 5). The bridges vary between six and forty-one spans. All the bridges are simple 14' wide (out-to-out), grade level, unpainted timber trestle structures made of white oak, Douglas fir and yellow pine treated with pentachlorophenol solution and creosote oil. Drift bolts connect timber bents set between 15' and 17' apart to three 12" X 12" wooden piles set 5'-3" apart and supported by 3" x 8" sway bracing. Eight 6" x 12" stringers, stabilized by trestle supports (cross bridging), are across each span. The flooring planks are 3" x 8" x 14', laid perpendicular to the road with a 3/4" open joint. A 6" x 6" x 5'-8" timber wheel guard set on 6" x 4" x 12" blocks line both sides of all the bridges. Following standard Park Service practices, the bridges were designed to harmonize with the natural environment to enhance the visitor's experience of the island.¹⁵

¹⁴U.S. Department of Commerce, Bureau of Public Roads, "Plans for Project 19A1, Colonial National Historical Park, Jamestown Island Tour Road, Grading and Surfacing," November 1955, Colonial National Historical Park, Engineer's office, Maintenance Division.

¹⁵The original drawings by the Eastern Office of Design and Construction, NHP-Col. 3117 for timber trestle bridges were modified by the Bureau of Public Roads in November 1955.

By February of 1956, the grading of the loop road was considered 50 percent complete, and test piles were driven for two of the four bridges. All clearing was completed by April, and grubbing operations continued to a width of 5' beyond the 20' roadway.¹⁶ Dead trees, brush and other combustible material was removed. At some of the bridge sites, fill was needed to level the grade between the road surface and the bridge deck. All five bridges were constructed concurrent with the grading of the loop road during the summer and fall of 1956. In September 1956, plans were completed to provide for eleven parking areas along the route with King's paintings. By November, all bridges were completed, and the road's grade and sub-base received a semi-final inspection. Surfacing of the road was delayed until the spring of 1957 during a period of heavy rains. Park staff erecting King's paintings noticed problems in the road, and reports of the landscape architects stated that, "soft conditions are evident at a number of locations." Early in the summer, cuts were made in the bituminous surface to facilitate proper circulation to dry the roadway. This was only a temporary solution.¹⁷

In 1958-1959, the Adams Construction Company was hired to place a more permanent paving on the loop road at a cost of \$18,610.95 per mile. The work included the reconstruction of sunken sections along the road with a gravel base course, surfacing with a 360 lb. bituminous mat, and raising the level of the shoulders which had eroded considerably from the heavy rains. The road was designed for speeds not to exceed thirty-five miles an hour, with a maximum degree of curvature of 11° 30' and a maximum grade of only 1 percent. Work began on raising the shoulders of the island road on 23 September 1958. After placing

¹⁶Abbott, Superintendent's Monthly Narrative Report, February-April 1965.

¹⁷This information comes from the monthly reports of the landscape architect to the superintendent of the park Abbott, between March 1956 and June 1957, in file A-2827, "Monthly Reports (Park Engineers) January 1954 to December 1957," Colonial National Historical Park.

a new gravel base where needed, the contractor bladed, watered, and rolled the road to create a smooth and even grade. Between October and November a four coat bituminous mat surface was laid on the tour road and the parking areas. Two days in the following spring were needed to shape and seed the shoulders to complete the project.¹⁸

The Jamestown island loop road continues to provide the primary visitor access to the interior of the island. The quiet, country road feel of the tour is thought to promote a broader understanding of the primitive isolation of the seventeenth century frontier. Considered "wilderness roads," the loop allows visitors to experience the "wild portions" of the island, where the solitude adds to the historical reality of the place. According to the 1961 Master Plan, "The loop road can be looked upon as an experience in history, leading the most interested visitor deeper into the thoughtful process of understanding the colony."¹⁹

Regular resurfacing and bridge work, often with shoulder maintenance and cutting, is done on the loop road every few years. Bridge maintenance generally includes replacing deteriorated deck timbers and guardrails and tightening bolts. Other than this minor work the circuit has remained unchanged since its opening in 1957, providing an integral experience of the island and insights into the 1950s interpretive programs of the National Park Service. As stated in the 1993 General Management Plan, the park is currently reevaluating the use of some form of mass transit on the island to reduce the number of automobiles and to

¹⁸U.S. Department of Commerce, Bureau of Public Roads, "Final Construction Report, Project 19A2 and 1D22," 14 February 1962, Colonial National Historical Park, Engineer's office, Maintenance Division.

¹⁹ U.S. Department of the Interior, National Park Service, "Master Plan for the Preservation and Use of Colonial National Historical Park," Mission 66 Edition, April 1971.

expand the interpretive experience for visitors.²⁰

²⁰ Alec Gould, "General Management Plan, Colonial National Historical Park," September 1993, collection of the CNHP.

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